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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/500,474

08/09/2004

Thomas Margaria

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23338 7590 01/26/2009
DENNISON, SCHULTZ & MACDONALD
1727 KING STREET
SUITE 105
ALEXANDRIA, VA 22314

EXAMINER

MAI, NGOCLAN THI

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

01/26/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/500,474	Applicant(s) MARGARIA, THOMAS	
	Examiner NGOCLAN T. MAI	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15, 16, 19, 20, 22-24, 26-28 and 30-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 and 26-28 is/are allowed.
- 6) ☒ Claim(s) 15, 16, 22, 30-34, 36 and 37 is/are rejected.
- 7) ☒ Claim(s) 20, 23-24, 35, 38-42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Claims 15-16, 19-20, 22-24, 26-28, 30-42 are currently under examination, wherein claims 15, 19, and 26-28 are currently amended and claims 30-42 are new in applicant's amendment filed on September 25, 2008.

Status of Previous Rejection

2. The various rejections made in previous office action are withdrawn in light of applicant's amendment filed September 25, 2008. However upon further consideration, the claims are rejected as follow.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15, 16, 22, 30-34 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuh et al. (U.S. Patent No. 3,415,307).

Concerning claims 15 and 30, Schuh et al disclose in a process for casting of pipe a coating of ferro-silicon or calcium silicon (60% Si, 30% Ca) is applied on the surface of a cylindrical centrifugal metal mold before introducing molten cast iron into contact with the inside surface of the mold will result in finer graphite nodules and reduced chill and casting

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surface obtained free of pinholes. See column 2, lines 12-18 and column 4, line 48 to column 5, line 20. Notes that both ferro-silicon and calcium silicon is known as inoculating alloy and since calcium silicon is a metal similar to the one used as the reducing agent (specification, page 4, lines 27-28), it would server as a strongly reducing metal having the claimed property. Schuh et al therefore teach either the inoculating alloy of ferro-silicon or calcium silicon can be used for coating the inside surface of the mold.

Schuh et al differ from the claims in that there is no teaching of at least one inoculating alloy and at least one strongly reducing metal that is volatile at the temperature of the molten cast iron. However since Schuh et al disclose the claimed material is conventionally known in the same field of endeavor or the analogous metallurgical art for coating mold surface in the process of making pipes, therefore, it would have been obviousness for one skilled in the art to combine two or more materials when each is taught by the prior art to be useful for the same purpose. In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Concerning claims 16 and 31, Schuh et at does not teach a mixture of a plurality of inoculating alloys. Schuh however teaches other known inoculating alloy such as ferro-silicon can be used. It would have been obvious to one skilled in the art to use more than one inoculants since the combine two or more materials when each is taught by the prior art to be useful for the same purpose.

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Concerning claims 32-34 and 36 calcium-silicon meets the claimed requirement that the strongly reducing metal is an element in column IIa of the periodic table, which it is calcium and it is of non-ferrous alloy.

Concerning claims 22 and 37, there is no mentioning of Fe in the calcium silicon alloy thus therefore it meets the claimed limitation, less than 10% by weight of Fe.

Response to Arguments

5. Applicant's arguments with respect to various rejections made in previous action have been considered but are moot in view of the new ground(s) of rejection. See above rejections.

6. Claims 20, 23-24, 35, 38-41, and 42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 19 and 26-28 are deemed allowable.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGOCLAN T. MAI whose telephone number is (571)272-1246.

The examiner can normally be reached on 8:30-5:00 PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art Unit
1793

n.m.